CLAIMS

We claim:

1. A method of determining a wireless system capacity comprising the steps of:

determining a reverse noise floor;

obtaining a plurality of forward code domain measurements and corresponding reverse noise measurements; and,

determining a maximum number of users such that the probability of exceeding a predetermined reverse noise rise is below a threshold.

2. The method of claim 1 wherein the forward code domain measurements comprise the number of active forward links.

3. The method of claim 1 wherein the step of determining a reverse noise floor is performed by obtaining reverse noise measurements during a period of inactivity.

4. The method of claim 1 wherein the step of determining a maximum number of users includes determining reverse noise rise measurements by comparing the reverse noise measurements to the reverse noise floor.

5. The method of claim 1 wherein the forward code domain measurements and reverse noise measurements are obtained substantially simultaneously.

McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, 32nd Floor
Chicago, IL 60606
(312) 913-0001

6. The method of claim 1 wherein the step of determining a maximum number of users includes, using measurements corresponding to those at or below a specific number of active sessions, forming a ratio of the number of measurements having an RNR below 3 decibels to the number of measurements corresponding to those at or below a specific number of active sessions, and comparing the ratio to a confidence level.

7. The method of claim 1 wherein the plurality of forward code domain measurements are obtained from a base station transceiver.

8. The method of claim 1 wherein the forward code domain measurements include a plurality of data sets, each set having a timestamp, a plurality of code IDs, and power levels for each code ID.

9. A method of determining a wireless system capacity comprising the steps of:

modifying at least one system parameter;

determining a reverse noise floor;

obtaining a plurality of forward code domain measurements and corresponding reverse noise measurements; and,

determining a maximum number of users such that the probability of exceeding a predetermined reverse noise rise is below a threshold.

10. The method of claim 9 wherein the forward code domain measurements comprise the number of active forward links.

McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, 32nd Floor
Chicago, IL 60606
(312) 913-0001

11. The method of claim 9 wherein the step of determining a reverse noise floor is performed by obtaining reverse noise measurements during a period of inactivity.

12. The method of claim 9 wherein the step of determining a maximum number of users includes determining reverse noise rise measurements by comparing the reverse noise measurements to the reverse noise floor.

13. The method of claim 9 wherein the forward code domain measurements and reverse noise measurements are obtained substantially simultaneously.

14. The method of claim 9 wherein the step of determining a maximum number of users includes, using measurements corresponding to those at or below a specific number of active sessions, forming a ratio of the number of measurements having an RNR below 3 decibels to the number of measurements corresponding to those at or below a specific number of active sessions, and comparing the ratio to a confidence level.

15. The method of claim 9 wherein the plurality of forward code domain measurements are obtained from a base station transceiver.

16. The method of claim 9 wherein the forward code domain measurements include a plurality of data sets, each set having a timestamp, a plurality of code IDs, and power levels for each code ID.

McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, 32nd Floor
Chicago, IL 60606
(312) 913-0001

17. The method of claim 9 wherein the said at least one system parameter is a power control parameter.

18. The method of claim 9 wherein the said at least one system parameter is a mobile access probe parameter.

McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, 32nd Floor
Chicago, IL 60606
(312) 913-0001